

AMENDMENT

In the Claims:

Claims 1 to 47 (Canceled).

48. (CURRENtLY AMENDED) A method for configuring a medical carrier, the method comprising:

providing an elongate body having at least one shared electrical conductor, wherein the shared electrical conductor carries data and power;
electrically coupling at least two separately identifiable effectors to the at least one shared electrical conductor, wherein the at least two separately identifiable effectors are axially spaced apart along the length of the elongate body and each of the at least two separately identifiable effectors comprises:

a plurality of electrodes;

an identifiable microprocessor electrically coupled to the plurality of electrodes, wherein each electrode of the effector is individually addressable and wherein each effector is controlled by its microprocessor independent of the other effector; and
configuring each effector by providing instructions to the microprocessor.

49. (Original) A method as in claim 48, wherein the providing step comprises providing the body coupled with a cardiac pacing lead.

50. (Previously Presented) A method as in claim 48, wherein the providing step comprises providing a body having a second electrical conductor, each conductor disposed in a separate lumen along at least a portion of the body.

51. (Canceled)

52. (Previously Presented) A method as in claim 48, wherein said elongate body is an implantable lead.

Claims 53 to 58 (Canceled).

59. (Original) A method as in claim 48, wherein at least one of the effectors comprises both a sensor and an actuator.

60. (Original) A method as in claim 59, wherein the sensor is selected from the group consisting of pressure sensors, volume sensors, dimension sensors, temperature or thermal sensors, oxygen or carbon dioxide sensors, electrical conductivity sensors, electrical potential sensors, pH sensors, chemical sensors, flow rate sensors, optical sensors, acoustic sensors, hematocrit sensors and viscosity sensors.

61. (Original) A method as in claim 59, wherein the actuator performs a function selected from the group consisting of providing an electrical current or voltage, setting an electrical potential, heating a substance or area, inducing a pressure change, releasing or capturing a material, emitting light, emitting sonic or ultrasound energy and emitting radiation.

Claims 62-64 (CANCELED).

65. (Original) A method as in claim 48, further comprising encapsulating at least a portion of the body and the mounted effectors with an encapsulating material.

66. (CANCELED).

67. (CURRENTLY AMENDED) An improved method for configuring a medical carrier having a body and at least two conductors of the type

including a plurality of systems, wherein the improvement method comprises the steps of:

providing separately identifiable effectors satellite units, wherein the effectors units are axially spaced apart along the length of the carrier's body and wherein at least one effector unit comprises:

at least two electrodes on a surface of the carrier's body an elongate body; and

an identifiable microprocessor capable of handling instructions, wherein the electrodes are coupled to the microprocessor and positioned about the microprocessor; and

electrically coupling each effector unit to one shared the conductors through an opening defined in the surface penetration of the carrier's body and wherein each effector surrounds its microprocessor.

68. (CURRENTLY AMENDED) A method as in claim 67, wherein each effector unit comprises:

at least one sensor coupled to the microprocessor; and
at least one actuator coupled to the mircopocessor.

Claims 69 to 113 (Canceled).

114. (CURRENTLY AMENDED) A method for configuring a medical carrier of the type including a plurality of satellite units, the method comprises:

positioning at least two separately identifiable effectors along an elongate body, wherein each effector comprises:

a microprocessor capable of handling instructions; and

a plurality of electrodes that are axially positioned around about the microprocessor and electrically coupled to the microprocessor and controlled thereby;

electrically coupling the microprocessor of each effector to a pair of shared conductors running the length of the elongated body, wherein the shared conductors carry power and data; and
configuring each effector through instructions provided to the microprocessor using one conductor of the pair of shared conductors.